

A Major Project Phase-I Report On  
**College Notes Gallery**

Submitted To



**Chhattisgarh Swami Vivekanand Technical University  
Bhilai, India**

For  
The Award of Degree  
of  
**Bachelor of Technology**  
*in*  
**Computer Science & Engineering**  
*By*

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**Session: 2022 – 2023**

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### **DECLARATION BY THE CANDIDATE**

We the undersigned solemnly declare that the Major Project report entitled “***COLLEGE NOTES GALLERY***” is based our own work carried out during the course of our study under the supervision of ***Mr. Dheeraj Kumar Ghaghre***.

We assert that the statements made and conclusions drawn are an outcome of the project work. We further declare that to the best of our knowledge and belief that the report does not contain any part of any work which has been submitted for the award of any other degree/diploma/certificate in this University/Deemed university of India or any other country.

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## CERTIFICATE BY THE SUPERVISOR

This is to certify that the Major Project report entitled “*COLLEGE NOTES GALLERY*” is a record of project work carried out under my guidance and supervision for the fulfillment of the award of degree of Bachelor of Technology in the faculty of Computer Science & Engineering of Chhattisgarh Swami Vivekananda Technical University, Bhilai (C.G.) India.

To the best of my knowledge and belief the report

- i) Embodies the work of the candidate himself
- ii) Has duly been completed
- iii) Fulfills the partial requirement of the ordinance relating to the Bachelor of Technology degree of the University
- iv) Is up to the desired standard both in respect of contents and language for being referred to the examiners.

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### **CERTIFICATE BY THE EXAMINERS**

The project report entitled “*COLLEGE NOTES GALLERY*” has been examined by the undersigned as a part of the examination of Bachelor of Technology in the faculty of Computer Science & Engineering of Chhattisgarh Swami Vivekanand Technical University, Bhilai.

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**Date:**

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**External Examiner**

**Date:**

## ACKNOWLEDGEMENT

Working for this project has been a great experience for us. There were moments of anxiety, when we could not solve a problem for the several days. But we have enjoyed every bit of process and are thankful to all people associated with us during this period we convey our sincere thanks to our project guide **Mr. Dheeraj Kumar Ghaghre**, (Assistant professor, CSE Department) for providing me all sorts of facilities. His support and guidance helped us to carry out the project. We owe a great department of his gratitude for his constant advice, support, cooperation & encouragement throughout the project we would also like to express our deep gratitude to respected **Dr. J.P. Patra** (Head of Computer Science and Engineering Department) for his ever helping and support. We also pay special thanks for his helpful solution and comments enriched by his experience, which improved our ideas for betterment of the project. We would also like to express our deep gratitude to our respected **Dr. Alok Kumar Jain** (Principal) and college management for providing an educational ambience. It will be our pleasure to acknowledge, utmost cooperation and valuable suggestions from time to time given by our staff members of our department, to whom we owe our entire computer knowledge and also we would like to thank all those persons who have directly or indirectly helped us by providing books and computer peripherals and other necessary amenities which helped us in the development of this project which would otherwise have not been possible.

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**ACKNOWLEDGEMENT – AICTE IDEA Lab**

We have taken efforts in this project. However, it would not have been possible without the kind support and help of AICTE-IDEA Lab at SSIPMT, Raipur. We would like to extend our sincere thanks to all the gurus, mentors and support staff of Idea lab.

## LIST OF ABBREVIATIONS

|       |                                |
|-------|--------------------------------|
| CMS   | Content Management System      |
| PHP   | Hypertext Preprocessor         |
| ERP   | Enterprise Resource Planning   |
| SQL   | Structured Query Language      |
| IA    | Information Architecture       |
| TLS   | Transport Layer Security       |
| LCS   | Longest Common Subsequence     |
| UML   | Unified Modelling Language     |
| O(nd) | Input Length and edit distance |

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## **ABSTRACT**

All of its activities were carried out on an annual basis under the current system. It becomes very challenging to handle the critical notes when needed because most notes are distributed over Whatsapp or some other form of messaging app. It takes an nordinate amount of time. The information in our proposed system, the "College Notes Gallery," will be monitored in the college server. To store the information, an SQL server will be used. The Admin and Faculty should register the user College staff can upload notes in the same way that text, videos and images, documents, and attendance are uploaded.

As well as an online interface accessible via admin. The subjects will be assigned by the courses and subject management module for each course that the college offers. We used Myers' distinct algorithm to eliminate file duplications. The admin of the university can have and monitor the knowledge of the student. The system offers reliability, security, time savings, and straight-forward control. This could improve the quality of your work.

**Keywords-** Pdf text extraction, Notes, File comparison, Web-based, string matching, Longest common sub-sequence

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# CHAPTER-1

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## INTRODUCTION

## 1.1 INTRODUCTION

As the world is being developed with the new technologies, discovering and manipulating new ideas and concepts of taking everything online are rapidly changing. It is difficult for teacher's to circulate their notes to each and every student whom is he/she teaching. College Notes Gallery provide an easy approach for both students and teachers to circulate the notes whether of any kind like lecture notes, assignment questions, question papers and all the important documents. It is a CMS website. Administrator of website can manage the contents and visitor can download the content . we made it together of group of two people. It is completely responsive website.

The teachers and students can upload the documents from anywhere and students can download it. Overall it is managed by the admin. Mostly the notes are circulated on WhatsApp or any kind so it gets very difficult to manage the important notes at the time of need. Our system will provide an easy approach to share the documents for studying purpose. Multiple users can work simultaneously on the system. It will be easy for the teachers to circulate the notes to each and every students. The system will be used by students and teachers in colleges and even it can be used by schools. Because the earth is being developed with the new technologies, discovering and manipulating new ideas and ideas of taking everything online are rapidly changing. It's difficult for teachers to circulate their notes to each and every student whom is he/she teaching. College Notes Gallery provide as simple approach enables teachers and students to exchange notes, regardless of the type, such as lecture notes, assignment ques-tions, question papers and every one the important documents. The materials can be uploaded by the instructors and students from anywhere and students can download it. Overall it's managed by the admin. Users of College Notes Gallery can safely register and log in to their individual accounts and make, read, update, delete notes consistent with their inneeds. It provides notes to everyone during a very secure manner. Multiple users can add this system is being imanaged by a centralised administrator at the same time. It is a mechanism for imanaging notes that is particularly helpful for colleges, schools, and other institutes manage and share their notes during a secure, efficient and effective manner. The programming language which we have used to made the software effective and efficient are PHP, JavaScript, CSS, HTML and MariaDB also to store the info we have used MySQL.

## **1.2 Module Specification**

### **Student:**

Students register on the website and login to access the notes uploaded by teachers and view them or download it.

### **Teacher**

The teacher has to first register on the website and then login to upload the note. Teacher can even delete the notes by logging in.

### **Notes**

Notes can be uploaded and deleted by teacher. It can be downloaded by every student and teacher.

### **Admin**

The notes are managed by admin. He has rights to approve or disapprove the notes uploaded by particular user.

## **1.3 Operating Environment**

### **Hardware Requirements**

- CORE 2 Duo PROCESSOR
- RAM 1 GB
- HARD DISK 10 GB
- CHACHE E MEMORY 512 KB

### **Software Requirements**

- WINDOWS OPERATING SYSTEM
- PHP
- MySQLi

- HTML, CSS, JAVASCRIPT,BOOTSTRAP
- XAMP
- APACHE SERVER
- SUBLIME TEXT EDITOR

The main goal of this project is to add mobility and automation to the process of managing student information in the laboratory. The system bridges this gap between the end user and the device scheduling manager by centrally managing the entire system. Different departments use this system to order different processes that are separated from each other.

The designed system is economical from a student and teacher's point of view. It aims to extract useful information from unstructured data using the concepts of information retrieval, filtering, and secure random algorithms. This helps solve the shortcomings of existing ERP systems. Our basic approach is to develop intelligent Web-based applications with MEANStack that can be used to make this process easier, safer and error-prone. .. This system provides more efficient information. Provides access to information related to colleges, faculties, uploaded assignments, notes, news and events, exams, discussion forums, and daily schedules on the go.

#### **1.4 XAMPP**

XAMPP is one of the widely used cross-platform web servers, which helps developers to create and test their programs on a local webserver. It was developed by the Apache Friends, and its native source code can be revised or modified by the audience.

It consists of Apache HTTP Server, MariaDB, and interpreter for the different programming languages like PHP and Perl. It is available in 11 languages and supported by different platforms such as the IA-32 package of Windows & x64 package of macOS and Linux.

XAMPP is an abbreviation where X stands for Cross-Platform, A stands for Apache, M stands for MYSQL, and the Ps stand for PHP and Perl, respectively. It is an open-source package of web solutions that includes Apache distribution for many servers and command-line executables along with modules such as Apache server, MariaDB, PHP, and Perl.

XAMPP helps a local host or server to test its website and clients via computers and laptops before releasing it to the main server. It is a platform that furnishes a suitable environment to test and verify the working of projects based on Apache, Perl, MySQL database, and PHP through the system of the host itself. Among these technologies, Perl is a programming language used for web development, PHP is a backend scripting language, and MariaDB is the most vividly used database developed by MySQL. The detailed description of these components is given below.

Many other components are also part of this collection of software and are explained below.

Cross-Platform: Different local systems have different configurations of operating systems installed in it. The component of cross-platform has been included to increase the utility and audience for this package of Apache distributions. It supports various platforms such as packages of Windows, Linus, and MAC OS.

Apache: It is an HTTP a cross-platform web server. It is used worldwide for delivering web content. The server application has made free for installation and used for the community of developers under the aegis of Apache Software Foundation. The remote server of Apache delivers the requested files, images, and other documents to the user.

MariaDB: Originally, MySQL DBMS was a part of XAMPP, but now it has been replaced by MariaDB. It is one of the most widely used relational DBMS, developed by MySQL.

It offers online services of data storage, manipulation, retrieval, arrangement, and deletion.PHP: It is the backend scripting language primarily used for web development.



PHP allows users to create dynamic websites and applications.

It can be installed on every platform and supports a variety of database management systems.

It was implemented using C language. PHP stands for Hypertext Processor. It is said to be derived from Personal Home Page tools, which explains its simplicity and functionality.

Perl: It is a combination of two high-level dynamic languages, namely Perl 5 and Perl 6. Perl can be applied for finding solutions for problems based on system administration, web development, and networking. Perl allows its users to program dynamic web applications. It is very flexible and robust.

phpMyAdmin: It is a tool used for dealing with MariaDB. Its version 4.0.4 is currently being used in XAMPP. Administration of DBMS is its main role.

OpenSSL: It is the open-source implementation of the Secure Socket Layer Protocol and Transport Layer Protocol. Presently version 0.9.8 is a part of XAMPP.

XAMPP Control Panel: It is a panel that helps to operate and regulate upon other components of the XAMPP. Version 3.2.1 is the most recent update. A detailed description of the control panel will be done in the next section of the tutorial.

Webalizer: It is a Web Analytics software solution used for User logs and provide details about the usage. Mercury: It is a mail transport system, and its latest version is 4.62. It is a mail server, which helps to manage the mails across the web.

Tomcat: Version 7.0.42 is currently being used in XAMPP. It is a servlet based on JAVA to provide JAVA functionalities.

Filezilla: It is a File Transfer Protocol Server, which supports and eases the transfer operations performed on files. Its recently updated version is 0.9.41.

# **CHAPTER-2**

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## **PROBLEM IDENTIFICATION AND LITERATURE REVIEW**

## 2.1 Problem Identification

There are many students who face problem in studying at the exam time because either they don't have the notes provided by teachers or they must have not been in the college. This System will provide a platform to easily access the notes. The Objective of Class Notes Gallery is to provide better facility to the students and teachers to bring out the easy circulation of documents within healthy environment. It will reduce the manual paperwork, reduced the sharing and distribution time. Mostly the notes are circulated on WhatsApp or any kind so it gets very difficult to manage the important notes at the time of need.

Learning is process of acquiring and understanding knowledge. Human learning process occurs as part of education or personal development which involves with several activities. Note-taking is one of these activities performed to acquire knowledge, and improve learning outcomes. It is a task of recording information synthesis from a transient source, such as reading material and attending lecture. Note taking tasks assist learners in the process of concentration, thinking, memorizing, recalling process, and enhancing performance. It is a complex human behaviour related to personal information management with a variety of underlying mental processes, and cognitive interactions. Note taking research had begun early on 1920s, when Crawford performed experimental study to examine the impacts of taking notes during lecture on student's performance. Education and learning research reported that note taking process has two essential functions for supporting learner activities, encoding and external storage. Encoding improves learning by affecting learner cognitive processworking memory. While, external storage is the produced notes which used to record information for reviewing purposes. Moreover, taking notes improves the ability of learn, integrate, and capture knowledge.

In addition, note taking improve students learning achievement and their academic performance, where about 99 % of students are writing notes, and 96 % of them consider note taking as an essential activity of their academic tasks. Recently, technology application in education is evolving, and pedagogy is beginning to change the educators teach and students learn styles. Substantial evidence indicated that current technologies are promising, introducing better ways to teach and acquire knowledge. Technology offered special devices essentially to improve education and learning methods via developing various system and applications to facilitate learning activity.

There is a global effort to improve learning environments; hence, the idea that most devices would be integrated with standard note-taking capabilities using pen-based technology to replace traditional note-taking in the future is conceivable. Similarly, technology has begun to produce new ways to support education by developing new environments, such as using projectors to replace blackboards; slides are presented from the computer instead of writing on the blackboard; microphone, digital pen, laser pointer, and web-based courses. Although we are in the digital age, note-taking as an education tool still struggles to exist in a traditional way.

The lack of support for note-taking in digital format would increase the gap between traditional and digital learning tools in the next decades because most information and knowledge are transformed into digital representations. Challenges on the usability of traditional notes clearly appear via information management tasks because of the pervasiveness of current digital technology.

Furthermore, people are expected to manage a large amount of information with different formats from varying resources to complete their academic tasks. Traditional note-taking was unable to meet these challenges and encouraged the development of electronic note-taking applications. The digital document has also more advantages compared to paper documents, such as storability, transportability, computability, reproducibility, legibility, search ability, printability, and security.

Since the digital learning materials afford new functions to enhance learning achievements.

Thus, digital note taking advantages were the essential reason to perform such research and encouraged both researchers and developers to facilitate digital note-taking developments. This article is structured as follows provides historical review and systematic analysis for classification of current digital note taking tools. Addresses the main challenges that prevent note taking tasks to be existed in digital media. Argues the rationale for this study. Section 5 presents our conclusion within the expected scope and the limitations of digital note taking research.

## 2.2 Literature Review

College Notes Gallery provide as simple approach enables teachers and students to exchange notes, regardless of the type, such as lecture notes, assignment questions, question papers and every one the important documents. The materials can be uploaded by the instructors and students from anywhere and students can download it. Overall it's managed by the admin. Users of College Notes Gallery can safely register and log in to their individual accounts and make, read, update, delete notes consistent with their needs. It provides notes to everyone during a very secure manner.

Multiple users can add this system is being managed by a centralised administrator at the same time. The problems of finding a longest common subsequence of two sequences A and B and a shortest edit script for transforming A into B have long been known to be dual problems. In this paper, they are shown to be equivalent to finding a shortest/longest path in an edit graph. Using this perspective, a simple  $O(ND)$  time and space algorithm is developed where N is the sum of the lengths of A and B and D is the size of the minimum edit script for A and B. The algorithm performs well when differences are small (sequences are similar) and is consequently fast in typical applications.

The algorithm is shown to have  $O(N+D^2)$  expected-time performance under a basic stochastic model. A refinement of the algorithm requires only  $O(N)$  space, and the use of suffix trees leads to an  $O(N \lg N + D^2)$  time variation.

"Technology has been both a miracle and a curse in terms of plagiarism. No doubt, it has become easier to find the required information and copy it.

Since people often do that without attribution, it has also become easier to identify and deal with plagiarism. With free plagiarism checker tools that can search billions of documents, and find matches even if they are only a few words in length, finding plagiarism has become as easy as detecting information in Google.

It is now only a matter of merely processing your query and giving you the results." Plagiarism definition is actually straightforward. When you use someone else's work without crediting them, it is seen as stealing their intellectual property.

Just like theft, the penalties for plagiarize work are also severe all over the world. The real problem is that most people are not even aware of what they are doing."With our plagiarism detector, we strive to spread awareness of plagiarism while letting people know how they can prevent it. You can find countless real-life examples of plagiarism to help you identify it in future. Our plagiarism tool is a perfect platform to check paper for plagiarism, in order to verify the integrity of its written content.

Our article, paper or essay plagiarism checker is trusted by millions of people all over world, who use it daily as a part of their studies or work. In some of the academic enterprises like universities, school and institutions, plagiarism detection and prevention became one of the educational challenges, because most of the students or researchers are cheating when they do the as-signed tasks and projects.

This is because a lot of resources can be found on the internet. It is so easy to them to use one of the search engines to search for any topic and to cheat from it without citing the owner of the document. So it is better and must all academic fields they should have to use plagiarism detection soft-wares to stop or to eliminate students cheating, copying and modifying documents when they know that they will be found.

An analysis of the types of notes shared in a college notes gallery and how they compare to official class materials. A study of the ways in which students use shared notes and the impact on their academic performance. A comparison of the effectiveness of shared notes vs. traditional study methods. An examination of the potential drawbacks of using shared notes, such as the possibility of inaccuracies or plagiarism.

A discussion of the ethical considerations surrounding the sharing of notes, including issues of copyright and intellectual property. An exploration of the ways in which technology is changing the way students share and access notes, and the implications for the future of education.

The paper discusses the method of the management information in higher education. On the basis of a comprehensive investigation and analysis on the student management in higher education, we establish the models of the college

students' management information by adopting the advanced information technology, and construct the student management information platform.

Moreover, we analyze the characteristics of the information management in higher education, and elaborate the methods to solve the difficulties confronting in the students management of the higher education.

Finally, the key method and technology to carry out the information management platform are presented.

To keep attendance records, some government and educational institutions in many countries still rely on a paper-based attendance approach. This approach has several drawbacks: B. Waste of time and environmental resources. These traditional attendance tracking methods need to be replaced with more efficient ones. Therefore, much work has been done in this direction. In addition, this survey aims to analyze the latest surveys on automated attendance systems from a scheduling perspective. Our critical review highlighted research in existing literature on technology, application domains, and key findings. It also emphasizes most of the numerous studies on any of the previous three aspects. This white paper describes how the combination of web services and mobile devices can accelerate the development of mobile applications. The Volley framework, proposed by Google in 2013, has the advantages of convenient use and faster network requests, but it does not support web services. Extends Volley to support web services.

This not only facilitates application development for web services, but also improves access performance for web services. Based on the analysis and research of Volley, Ksoap2, and Java web services, it implements the Http stack interface and extends JSON object requests to provide web service support. The schema uses JSON format for data transfer, supports SSL / TLS protocol requests, custom parameters, and sets or gets request headers. This scheme is highly compatible, easy to use and suitable for applications on the Android platform.

## **CHAPTER-3**

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### **METHODOLOGY**



### 3.1 Methodology

The following is a step-by-step strategy for building the application :

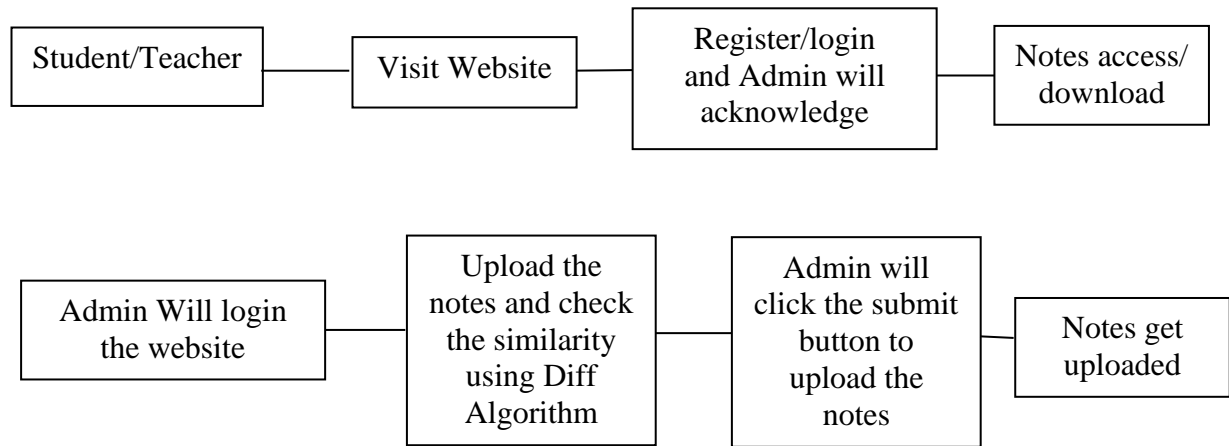


Figure 3.1: Work Flow chart of all the steps performed for the web development

#### 3.1.1 Discovery and project research

Discovery includes a deep investigation of the lead's business requirements and the framing of a rough solution.

- What technology stack should be used?
- How an application will be scaled further and does this tech stack address further needs?
- Is there a match between our proposed solutions and the lead's vision?
- Does this solution fit a budget?

If the rough solution and the budget are accepted, the sales manager passes available documentation and specifications to a lead developer for further, more detailed investigation and estimation. After several iterations, the sales manager and the lead together create a description of the scope of work.

Here the sales manager takes off and the project manager or a lead developer steps in. The lead becomes a client.

### **3.1.2 Wireframes and prototypes**

A wireframe is literally a draft or a schema of a future web page. It includes all the blocks that should be placed on the page and gives an impression of a page's grid. Having the wireframes in makes it possible to provide a more precise estimate and sweat the details of the functionality.

### **3.1.3 UI Design**

Once the wireframes are complete, we can move on to the design of a user interface and apply brand colors and elements. A designer works on design assets until final approval. The lead developer controls the design process as the outcome should be realizable within the client's budget.

### **3.1.4 Back end development**

In Drupal development which is our focus, initial installation and configuration go first. Then developers set up all necessary settings of modules.

After the pages are built and coded, and front-end developers applied designs, Drupal back-end developers make sure every website page is approved, and the client has gone through demo versions of every feature on the website.

### **3.1.5 Front end development**

Depending on the project, the front-end and back-end development can go either in parallel or the back-end is followed by the front-end. A front-end developer implements all visual features and makes sure everything is pixel-perfect, and that a website is cross-browser compatible. Be attentive to the front end: its state impacts important website metrics, including Core Web Vitals, and, in the end, it impacts website's Google ranking as well.

### **3.1.6 Quality Assurance**

If you're the client, never ever omit the testing stage. There are no minor issues when it comes to website performance. Believe us, your website's visitors will notice every teeny-tiny bug.

After the integration test, we move to the functional and UI tests and end up with manual smoke testing.

### **3.1.7 Launch and Maintenance**

Besides maintenance and support, the development team usually teaches the client how to use a website, manage it and add content, etc.

## **3.2 Agile**

Officially Agile was born in 2001 from the Agile Manifesto to improve productivity in software development, but it's now expanding into other areas (for example, marketing).

Agile is a structured and iterative approach to project management and product development. On this system of approaches, flexible project management methodologies (Scrum, Kanban, XP, and others) are built. Agile methodologies are an alternative to Waterfall or traditional sequential development.

In short, Agile is a time-focused philosophy that allows creating a project incrementally, dividing it into small pieces. One of its main benefits is the ability to adapt and change at any step and to supply only relevant products to the market. There are no exact stages; time is time-boxed into sprints. A sprint is a time allocated for particular tasks and defined deliverables. The tasks' value is supposed to be defined by a customer, who's deeply involved in the web development process of a new product. A sprint usually is measured in weeks. The Agile approach is all about the client's presence and control (not necessarily physical). The client should be ready to dedicate some time to reviewing sprint outcomes, assessment, and (re)prioritizing. The client can test basic product version before a final release or even put a basic version on the market.

That's a really great approach for the markets where being first means everything. Also, the client can change the project requirements on and off.

Some of the Agile principles:

Business people and developers must work together daily throughout the project.

Working software is the primary measure of progress.

Agile processes promote sustainable development.

The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Simplicity—the art of maximizing the amount of work not done—is essential.

Alike Lean, Agile is not the methodology, but more of an approach or even philosophy.

### **3.3 Languages Used**

#### **- HTML**

HTML (Hypertext Markup Language) is a text-based approach to describing how content contained within an HTML file is structured. This markup tells a web browser how to display text, images and other forms of multimedia on a webpage.

HTML is a formal recommendation by the World Wide Web Consortium (W3C) and is generally adhered to by all major web browsers, including both desktop and mobile web browsers. HTML5 is the latest version of the specification. HTML is a text file containing specific syntax, file and naming conventions that show the computer and the web server that it is in HTML and should be read as such. By applying these HTML conventions to a text file in virtually any text editor, a user can write and design a basic webpage, and then upload it to the internet.

The most basic of HTML conventions is the inclusion of a document type declaration at the beginning of the text file. This always comes first in the document, because it is the piece that affirmatively informs a computer that this is an HTML file. The document header typically looks like this: `<!DOCTYPE html>`. It should always be written that way, without any content inside it or breaking it up. Any content that comes before this declaration will not be recognized as HTML by a computer.

## **- CSS**

Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS describes how elements should be rendered on screen, on paper, in speech, or on other media. CSS is among the core languages of the open web and is standardized across.

Web browsers according to W3C specifications. Previously, the development of various parts of CSS specification was done synchronously, which allowed the versioning of the latest recommendations. You might have heard about CSS1, CSS2.1, or even CSS3. There will never be a CSS3 or a CSS4; rather, everything is now CSS without a version number.

## **- JavaScript**

JavaScript (JS) is the most popular lightweight, interpreted compiled programming language. It can be used for both Client-side as well as Server-side developments. JavaScript also known as a scripting language for web pages. JavaScript is used by many developers (65% of the total development community), and the number is increasing day by day. JavaScript is one such programming language that has more than 1444231 libraries and increasing rapidly. It is preferred over any other programming language by most developers. Also, major tech companies like Microsoft, Uber, Google, Netflix, and Meta use JavaScript in their projects.

## **- PHP**

The PHP Hypertext Preprocessor (PHP) is a programming language that allows web developers to create dynamic content that interacts with databases. PHP is basically used for developing web based software applications. This tutorial helps you to build your base with PHP. PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994. PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.

## **- MySql**

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by Oracle Company. Our MySQL tutorial includes all topics of MySQL database that provides for how to manage database and to manipulate data with the help of various SQL queries. These queries are: insert records, update records, delete records, select records, create tables, drop tables, etc.

There are also given MySQL interview questions to help you better understand the MySQL database. It is very important to understand the database before learning MySQL. A database is an application that stores the organized collection of records. It can be accessed and manage by the user very easily. It allows us to organize data into tables, rows, columns, and indexes to find the relevant information very quickly. Each database contains distinct API for performing database operations such as creating, managing, accessing, and searching the data it stores. Today, many databases available like MySQL, Sybase, Oracle, MongoDB, PostgreSQL, SQL Server, etc. In this section, we are going to focus on MySQL mainly.

### **3.4 Mayers Diff Algorithm**

An  $O(ND)$  Difference Algorithm and Its Variations, which unified the problems of finding the longest common subsequence of two sequences (the LCS of "driftwood" and "artwork" is "two") and finding the shortest edit script for transforming one sequence into another. Myers showed that these problems were equivalent to finding the shortest path over an "edit graph."

His algorithm improved the popular diff utility, a data comparison tool that displays the smallest set of line-by-line deletions and insertions to transform one file into another. Figure 1 contains an example of diff output, itself called a "diff", when given two similar poems: Colin Morton's 1981 "Empty Bottles" and David Morgan's 2011 plagiarism "Monkey Stops Whistling." In the output, lines prefixed by a "+" are insertions from the destination file, lines prefixed by a "-" are deletions from the source file, and lines lacking a "+" or "-" prefix are lines shared by both sequences.

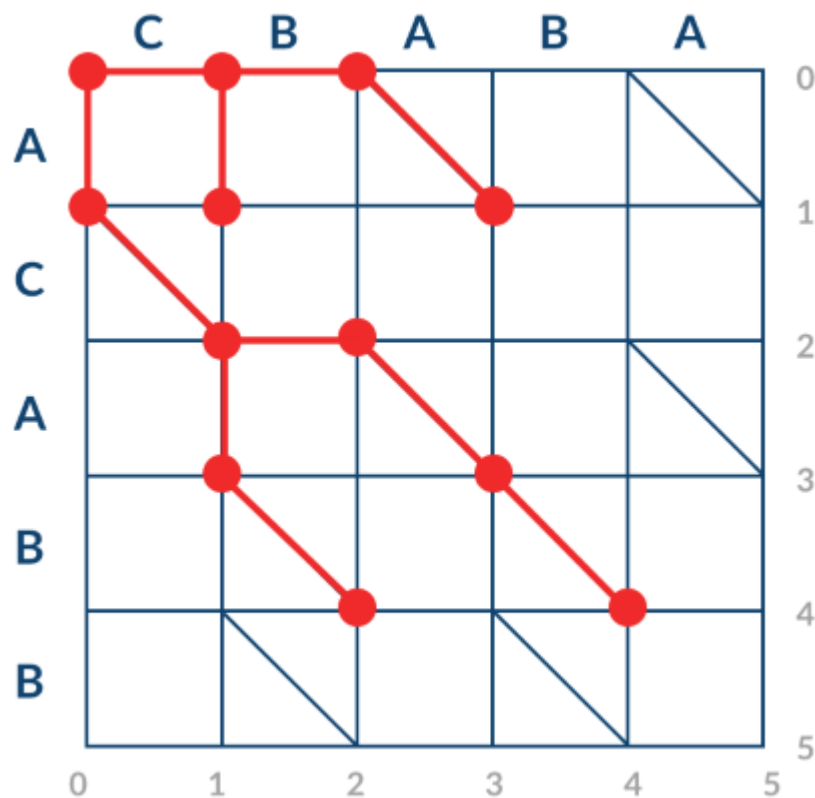


Figure 3.2: Mayer's Algorithm Path

After having the correct paths, we can now use them to mark the differences between our strings. These are the rules that we have to follow:

Every vertical move is considered inserting the corresponding character into the square we are moving towards from the 'new' string (S2) — e.g. moving between (0,0) and (0,1) means inserting the 'A' character from S2

Every horizontal move is considered deleting the corresponding character into the square we are moving towards from the 'old' string (S1) — e.g. moving between (0,0) and (1,0) means deleting the 'C' character from S1

Every diagonal move is considered leaving the corresponding character in the square we are moving towards (remember that diagonals are placed in squares with the same corresponding letters).

## **3.5 System Architecture**

### **A. User Module**

In this module, you enter a username and password to authenticate the user. If the username and password are valid, they will be displayed on the static screen. When they match each other, the system checks their status and transfers control to their respective user interfaces.

### **B. Database Module**

The system uses mongoDB as the database and ExpressJS and NodeJS as the backend server because of its simplicity and flexibility. This module stores all information about students, teachers and models data for specific operations. You can save student attendance, result data, or authentication data for these operations.

### **C. Staff Module**

This module is intended for employees who use their mobile phones to record attendance, upload results, and upload university notifications and discussion forums. The administrator data entered is encrypted and sent to the server for verification. The operation will only be performed after successful authentication. If the username and password do not match, you can proceed to the next static screen.

### **D. Notification Module**

This module allows the HOD department to provide students with notifications about university-related information. Students can view the notifications provided by the interface provided by the application and send messages only to all students, all faculties, specific faculties, and available options like all.

### **E. Discussion Forum Module**



This module is a feature that allows students and teachers to discuss student questions. This discussion takes place through this feature on mobile devices and in a discussion thread dedicated to each interaction. All users involved in this discussion will receive notifications on their device. This discussion forum allows subject teachers to upload notes and answer student questions. Students can ask questions and upload notes at the same time.

#### F. News and Event Service

The news service is for all students and staff . As soon as news about the university/college is released on the university/college website, a notification is sent to all the students and staff .

#### G. Assignment and Notes Module

This service is intended for both employees and students, but both use different features. Students can view the following important information in assignments and notes: Number of assigned tasks. After analyzing this data, the system will notify students when they upload new assignments and notes from the faculty. Staff can use their mobile devices to upload useful notes for students and new assignments.

#### H. Exam Remainder Module

This feature is available for the students. They can set remainders for their exams accordingly.

### **3.6 Use-Case Diagram**

To model a system, the most important aspect is to capture the dynamic behaviour. Dynamic behaviour means the behaviour of the system when it is running/operating. Only static behaviour is not sufficient to model a system rather dynamic behaviour is more important than static behaviour. In UML, there are five diagrams available to model the dynamic nature and use case diagram is one of them.

These internal and external agents are known as actors. Use case diagrams consists of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system.

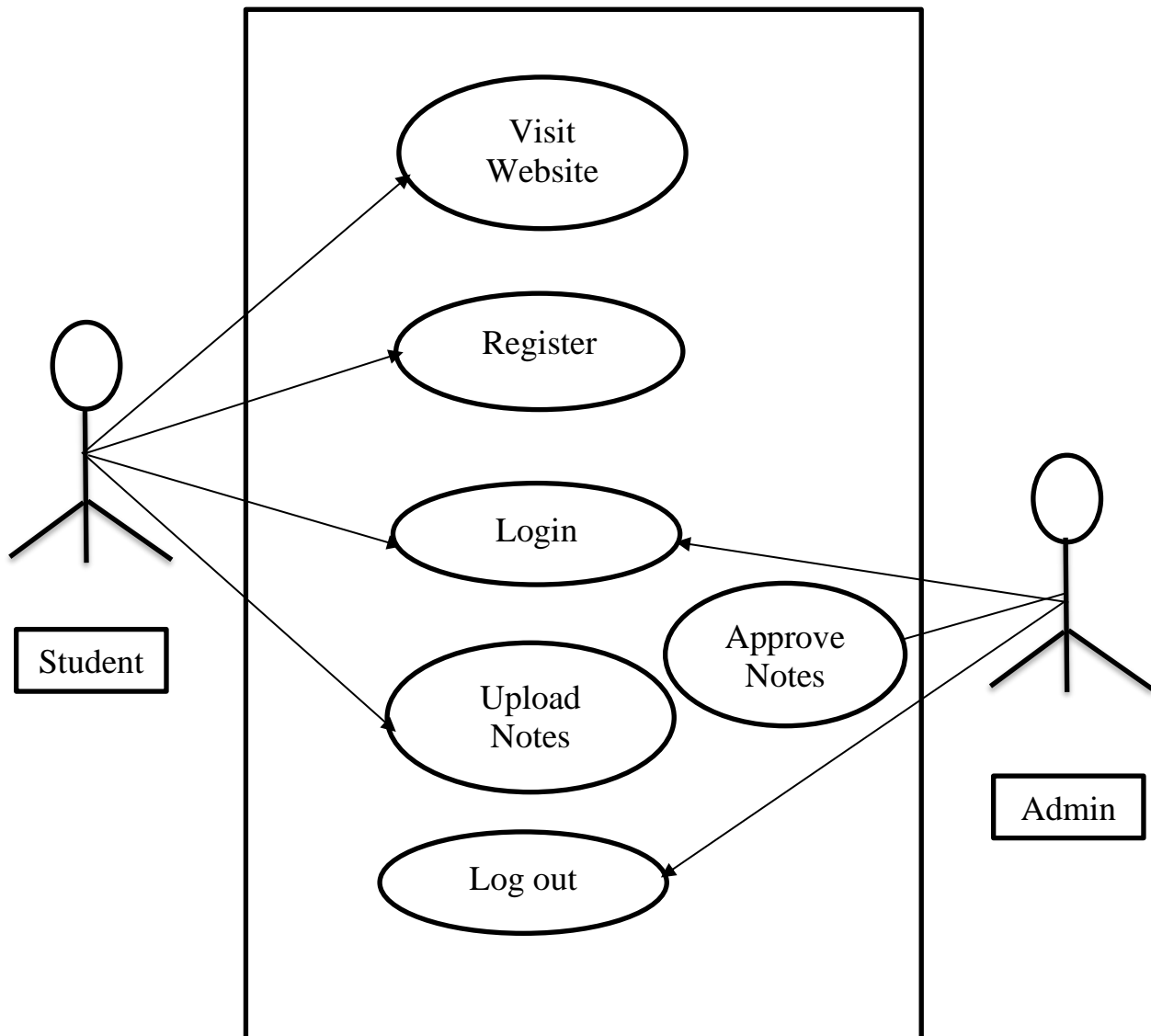


Fig 3.3 USE Case Diagram

## **CHAPTER-4**

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### **RESULT**

## 4.1 Snapshot with Description



Figure 4.1: Home page

It is the home page of the proposed system which contains the uploaded notes of all the subjects of the 3<sup>rd</sup> semester of the college.

Each subject are having different notes of their units or chapters uploaded by the admin.

There is an administrator button at bottom which takes the admin to the uploading section of the web pag

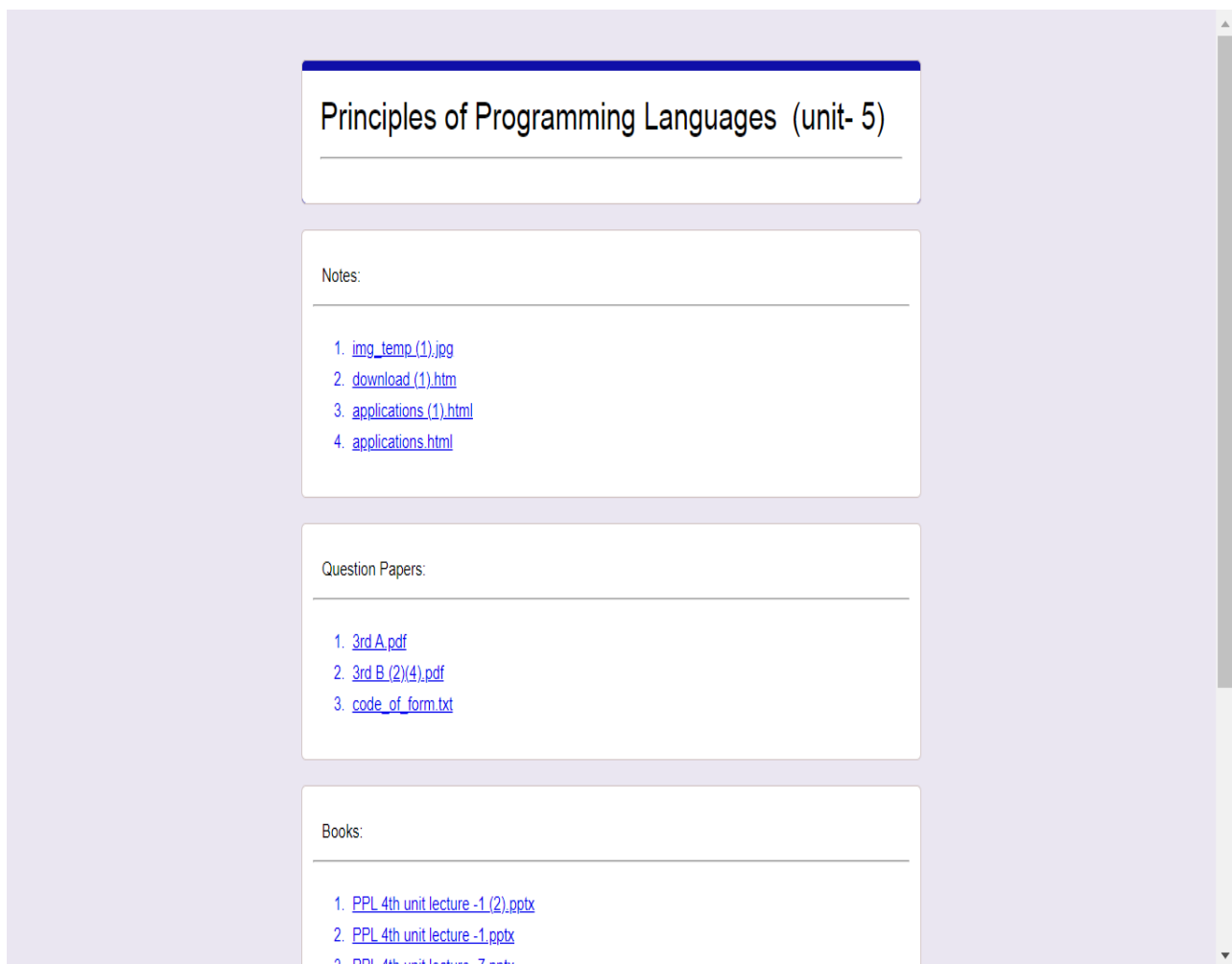
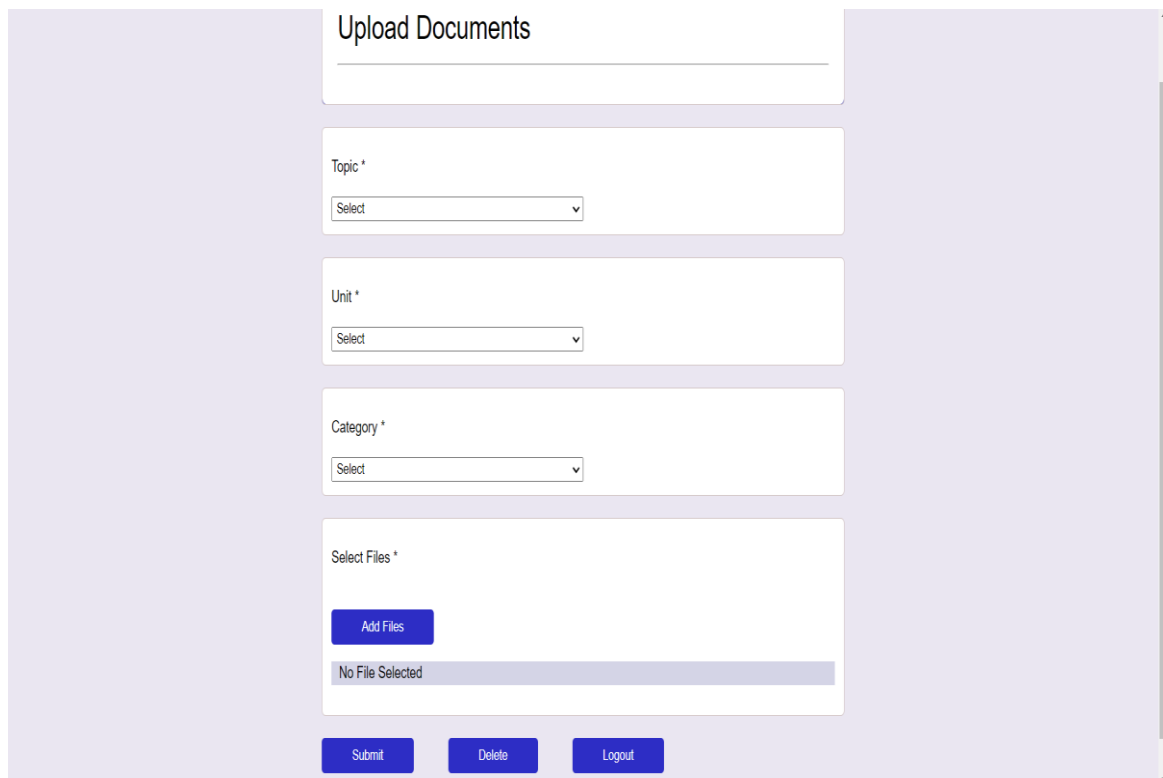


Figure 4.2: Page of Unit 5 Notes

This is the the notes of unit 5 which contains different sections including notes, question paper, books in the form of pdf, text, image format uploaded by the admin.



The screenshot shows a web form titled "Upload Documents" with a light purple background. The form contains the following elements:

- A text input field at the top.
- A "Topic \*" dropdown menu with "Select" as the placeholder.
- A "Unit \*" dropdown menu with "Select" as the placeholder.
- A "Category \*" dropdown menu with "Select" as the placeholder.
- A "Select Files \*" section containing:
  - An "Add Files" button.
  - A file selection area showing "No File Selected".
- A footer with three buttons: "Submit", "Delete", and "Logout".

Figure 4.3: Upload Section Page

This is the upload page where admin can upload the page using the computer file system by clicking the add files button. Submitting it will upload the notes, otherwise admin can also delete any notes uploaded earlier. Logout button will logout the admin from the webpage.

Select

Unit \*

Select

Category \*

Select

Select Files \*

Add Files

No File Selected

Compare File for Similarity with Existing Files

Start

| File Name                      | Similarity (%) | Action                          |
|--------------------------------|----------------|---------------------------------|
| Networking Notes               | 68%            | <a href="#">View Similarity</a> |
| Networking                     | 90%            | <a href="#">View Similarity</a> |
| Introduction to Networking.pdf | 74%            | <a href="#">View Similarity</a> |

Submit Delete Logout

Figure 4.4: Compare file Simimilarity

After theadmin added the files, the simialrity will be compared automatically that the files have any similarity in the form of the percentage with each other documents.

I am the very model am the very model am the very model am the very model off am the very model am the very model am the very model am the very mode  
a modern Major-General of a cartoon individual,  
  
P've info My animation vegetable, anim's comical unusual, and minor whimsical,  
I know the kings of England, and I quote in quite adept at funny gags, comedic the fights historicalory I have read.  
From Marathon wicked runs and stupid jokes to Waterloo, in order categorical anvils that drop on your head.

Figure 4.5: Text Similarity

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# **CHAPTER-5**

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## **CONCLUSION**

## **5.1 Conclusion**

It has been a matter of immense pleasure, honour and challenge to have this opportunity to take up this project and complete it successfully. It was a nice experience working with the professors. This will be helpful when we will work in industry & educational field where we can put all these in our practice.

While developing this system COLLEGE NOTES GALLERY, we have learnt a lot about the working of system. During the development process, We have understood the concept of designing and building a system. While working on my system we have used all the knowledge which was taught us and all that makes this project complete.

It has been an enormous honor, pleasure, and challenge to have this opportunity and successfully complete this project. Working with the professors had been a fantastic experience. This may be helpful when we will work in industry & educational field where we will put all these in our practice. We've been working on a method called "COLLEGE NOTES GALLERY" and have learned a lot about how the system works. Throughout the event, I've learned about the concept of designing and building a system. While working on my system, It's been an immense pleasure, honor, and challenge to have this opportunity and see it through. It has been a pleasure to work with this. While working on the "College Notes Gallery," We learned a lot about how the system works. During the event processing, We became acquainted with the concept of designing and constructing a system. While working on my system, We have used all of the knowledge We have gained an understanding of the idea of creating and constructing a system throughout the idea-development process. We used every piece of information presented to me while developing my system, and this is what makes our project a success.

## **5.2 Future Scope**

In the future scope, in this system we can apply the signup page for the students which will make the system encrypted with the data from the others person who access in this website and admin can also monitor the usage of this system from the students.

## REFERENCES

- [1] Zhi-gang YUE ,You-wei JIN,\" The development and design of the student management system based on the network environment\", International Conference on Multimedia Communications,978-0-7695-4136-5/10 2010 IEEE.
- [2] Zainab Hussein Arif , Nabeel Salih Ali , Nurul Azma Zakaria , Mohammed Nasser Al-Mhiqani, “Attendance Management System for Educational Sector.”
- [3] JinMei-shan,QiuChang-li,LiJing, \"The Designment of Student Information Management System Based on B/S Architecture\", IEEE Computer Society ,978-1-4799-3134-7/14/ 2014 IEEE.
- [4] Yang Shulin,Hu Jieping, \" Research and Implementation of Web Services in Android Network Communication Framework Volley\", IEEE Computer Society ,978-1-4799-3134-7/14/ 2014 IEEE
- [5] Suriyani Ariffin,Ramlan Mahmod,Ratini Rahmat, Nuzul Annisa Idris,\"SMS Encryption using 3D-AES Block Cipher on Android Message Application \", International Conference on Advanced Computer Science Applications and Technologies 978-1-4799-2758-6/13 2013 IEEE.
- [6] Ramesh Shrestha,Yao Aihong,\"Design of Secure Location and Message Sharing System for Android Platform \", International Conference on Advanced Computer Science Applications and Technologies 978-1-4673-0089-6/12/ 2012 IEEE.
- [7] Aho, A.V., Hirschberg, D.S., and Ullman, J.D. “Bounds on the Complexity of the Longest Common Subsequence Problem.” Journal of ACM 23, 1 (1976), 1-12.
- [8] Aho, A.V., Hopcroft, J.E., and Ullman, J.D. Data Structures and Algorithms. Addison-Wesley, Reading, Mass. (1983), 203-208.
- [9] Hsuan-Che Yang,Wen-Ying Wang “Facilitating Academic Service-Learning with Android-based Applications and Ubiquitous Computing Environment ”,Published in 978-0-7695-4493-9/11 2011 IEEE.
- [10] Cia Zhongxi,\"Campus Employment Information Network Development based on Android Platform \" International Conference on Intelligent Transportation, Big Data Smart City 2016 IEEE .
- [11] HTML and CSS by Jon Duckett. PHP and MYSQL web development by Luke Welling, Laura.

[12] For string matching algorithm -

<https://github.com/google/diff-match-patch>

[13] <https://neil.fraser.name/writing/diff/myers.pdf>

[14] <https://qawithexperts.com/article/javascript/read-pdf-file-using-javascript/318>

[15] Reference for pdf reader <https://github.com/mozilla/pdf.js/>

# **PAPER PUBLICATION**